

Work Order ID 91323

October-04-12 1:12:23 PM

91323

Page 1

Item ID: D3529-1

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Bearpaw

Start Date: 04/10/2012 Start Qty: 4.00

4

Cust Item ID:

Required Date: 19/10/2012 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 12-10-04

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3529	Rev A								
110		0.00							
110	FLOW WATER JET								
Waterjet	Memo	0.00							
FLOW CNC Waterjet	CUT BLANK AS PER FILE D3529-1BLANK								
UHlw 1"									
120		0.00							
120	HAAS CNC VERTICAL MACHINING #1								
HAAS 1	Memo	0.00							
HAAS CNC vertical machine #1	1-Inspect material for defects or damage prior to machining2-Machine as per Folio FA645 and Dwg D35293-Debur								
			PO	12/04/25					
130		0.00							
130	QC2- Inspect parts off machine FAI/FAIB								
QC	Memo	0.00							
Quality Control			PO	12/04/25					

4 0 Jm 12-10-14

21 12-10-24

4 0

4 0

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: AWH Date: 12/11/02QA Closed: CK Date: 11

Work Order: <u>91323</u> Part No. <u>03529-1</u> NCR No. <u>12-1999</u>				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input checked="" type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input checked="" type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>						Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input checked="" type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
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Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector																		
Doc/Data <input type="checkbox"/>	12/10/25	120	1	General Thickness of Part is higher than tolerance. $\approx .010 - .020$. Reason: 2 offset was set to High from previous operator.	DAS 22 288 12.10.25	ACCEPTABLE DEVIATION.	PD 12/10/25	DAS 08 8-88 12/10/26	 12/10/25																		
Equip/Tooling <input type="checkbox"/>																											
Operator <input checked="" type="checkbox"/>																											
Material <input type="checkbox"/>																											
Setup <input type="checkbox"/>																											
Other <input type="checkbox"/>																											
Process <input type="checkbox"/>																											
Supplier <input type="checkbox"/>																											
Training <input type="checkbox"/>																											
Unapproved <input type="checkbox"/>																											

FAULT CATEGORY

Landing Gear

- ☐
- Bending
-
- ☐
- Centre Not Concentric to O/S
-
- ☐
- Cracks
-
- ☐
- Crushed/Crimped
-
- ☐
- Cuffs
-
- ☐
- Heat Treat
-
- ☐
- Inspection Strip in Tube
-
- ☐
- Ripples in Bend
-
- ☐
- Torque Waves in Extrusion
-
- ☐
- Turning Sequence
-
- ☐
- Wave/Twist in Tube

General

- ☐
- Bend
-
- ☐
- BOM/Route
-
- ☐
- Broken/Damaged
-
- ☐
- Burrs
-
- ☐
- Contamination
-
- ☐
- Countersink
-
- ☐
- Cut Too Short
-
- ☐
- Drill Holes
-
- ☐
- Drawing
-
- ☐
- Finish
-
- ☐
- Folio

- ☐
- Grain
-
- ☐
- Hardware
-
- ☐
- Inspection Incomplete
-
- ☐
- Instructions Incomplete/Unclear
-
- ☐
- Maintenance
-
- ☐
- Mislabeled
-
- ☐
- Misread
-
- ☐
- Offset
-
- ☐
- Out of Calibration
-
- ☐
- Out of Sequence
-
- ☐
- Outside Dimensions

- ☐
- Ovalized
-
- ☐
- Over/Under tolerance
-
- ☐
- Part Incorrect
-
- ☐
- Part Lost/Missing
-
- ☐
- Part Moved
-
- ☐
- Positioned Wrong
-
- ☐
- Power Loss/Surge
-
- ☐
- Pressure/Forced
-
- ☐
- Temperature/Cure
-
- ☐
- Weld
-
- ☐
- Wrong Stock Pulled
-
- ☒
- Other

LOA

Work Order ID 91323

October-04-12 1:12:23 PM

91323

Page 2

Item ID: D3529-1

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Bearpaw

Start Date: 04/10/2012 Start Qty: 4.00

4

Cust Item ID:

Required Date: 19/10/2012 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

140

QC8- Inspect parts - second check

0.00

D.A 12/10/26

4

0

DAS
08
9-89

140

QC

Memo

0.00

Quality Control

150

Identify as per dwg & Stock Location:

0.00

150

Packaging

Memo

0.00

Packaging

4x SL 12/10/29

160

QC21- Final Inspection - Work Order Release

0.00

160

QC

Memo

0.00

Quality Control

12/10/31

12-10-31

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width: 25%;">Skid-tube <input type="checkbox"/></td> <td style="width: 25%;">Crosstube <input type="checkbox"/></td> <td style="width: 25%;">Water Jet <input type="checkbox"/></td> <td style="width: 25%;">Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coor. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>						Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
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Picklist Print

October-04-12 1:12:26 PM

Page 1

Work Order ID: 91323

91323

Parent Item: D3529-1

D3529-1

Parent Item Name: Bearpaw

Start Date: 04/10/2012

Required Date: 19/10/2012

Start Qty: 4.00

Required Qty: 4.00

Comments:

IPP Rev:A New Issue 06-06-28 JLM

IPP Rev:B New Manufacturing Method 08-11-27 Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MUHMWB10		Purchased	No			100	sf	448.7100	1.265	5.326516			
MIJHMWB10									**	5.5			
UHMW 1" Black													Jm 12-10-11

Location	Loc Qty	Loc Code
MAT018	425.6	
118814	0	
120972	1	
121346	26.1	
121954	12.8	
122286	14.3	
122575	23.8	
122722	147.6	
123229	200	
MAT019	1.5	
118814	1.5	
ST052	21.60999474	
121277	12.8	
121278	8.80999474	

121346 x 1 = 1.375 S.F.

122722 x 3 = 4.125 S.F.

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

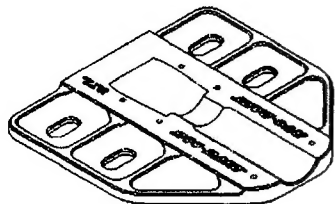
DQA: _____ Date: _____

QA Closed: _____ Date: _____

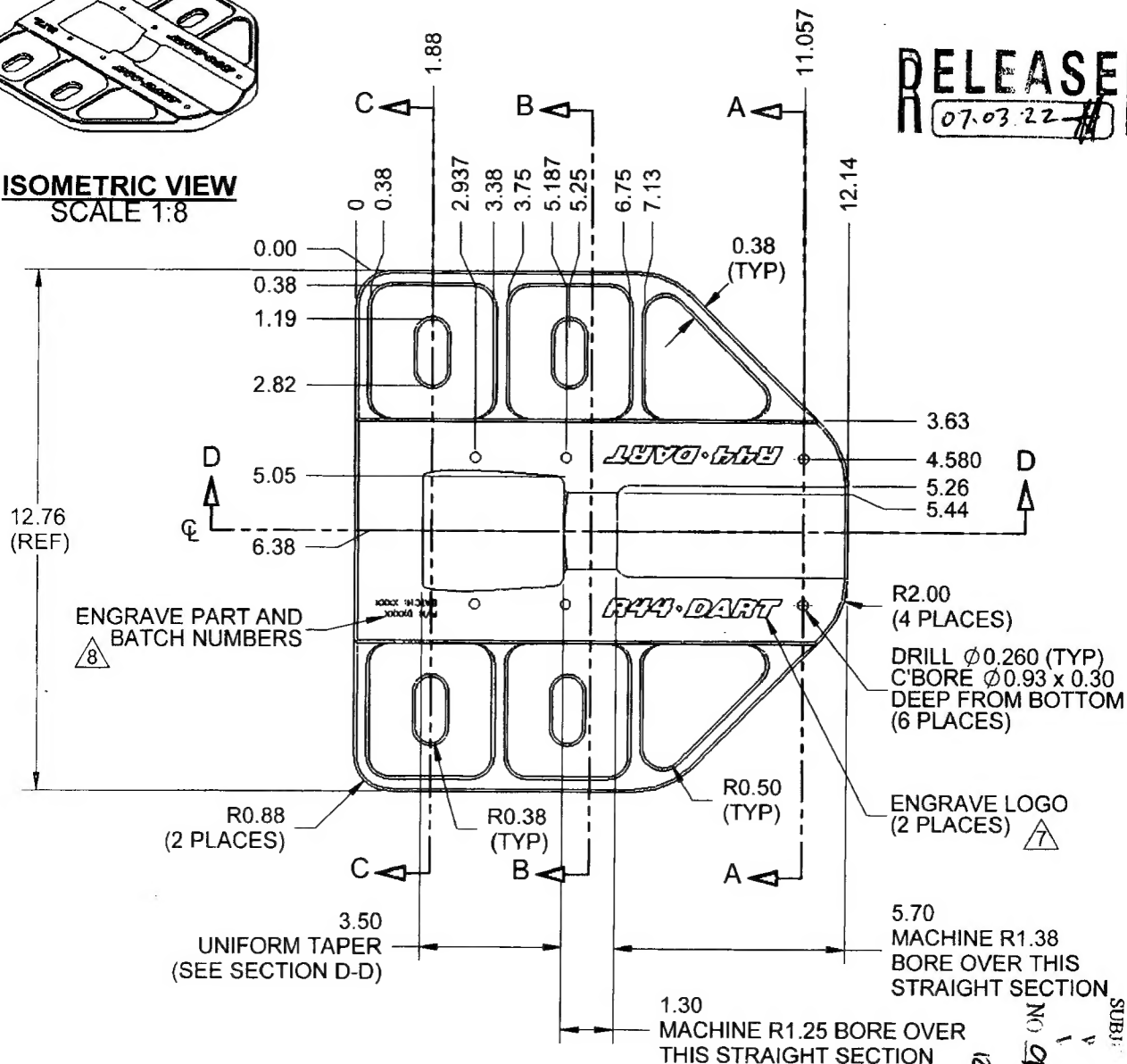
Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:25%;">Skid-tube <input type="checkbox"/></td> <td style="width:25%;">Crosstube <input type="checkbox"/></td> <td style="width:25%;">Water Jet <input type="checkbox"/></td> <td style="width:25%;">Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>						Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
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DESIGN CB	DRAWN BY CB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D3529	REV. A SHEET 1 OF 2
DATE 07.01.04	TITLE R44 BEARPAW		SCALE 1:4
REV A	DATE 07.01.04	DESCRIPTION NEW ISSUE	



ISOMETRIC VIEW
SCALE 1:8



RELEASED
07.03.22

D3529-1 R44 BEARPAW

NOTES:

- 1) MATERIAL: UHMW BLACK PER SPEC CONTROL DRAWING D2689, 1.00 THICK (MACHINE TO 0.950)
- 2) FINISH: NONE
- 3) PART IS SYMMETRIC ABOUT ϕ
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010 MAX
- 7) ENGRAVE LOGO TO MAX DEPTH OF 0.012 AT LOCATION SHOWN
- 8) ENGRAVE PART AND BATCH NUMBERS TO MAX DEPTH OF 0.010 AT LOCATION SHOWN

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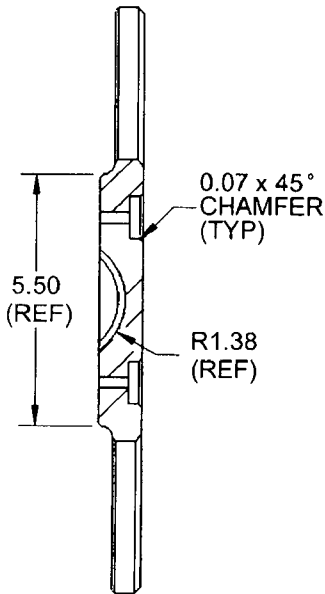
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UNCONTROLLED COPY
SUBMIT TO DART AEROSPACE LTD
FOR REVIEW AND APPROVAL
DATE: 07.03.22
BY: [Signature]
12-10-PY

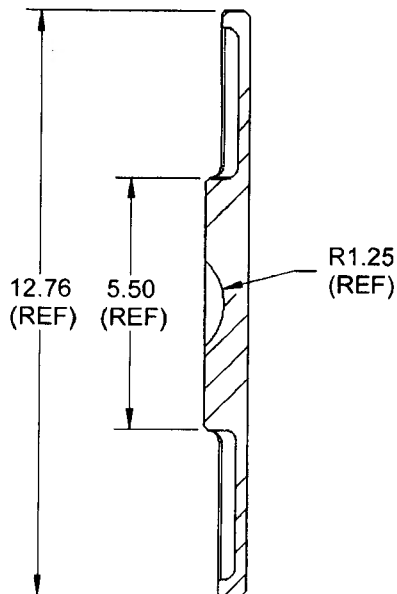


DESIGN CB	DRAWN BY CB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D3529	REV. A SHEET 2 OF 2
DATE 07.01.04		TITLE R44 BEARPAW	SCALE 1:4

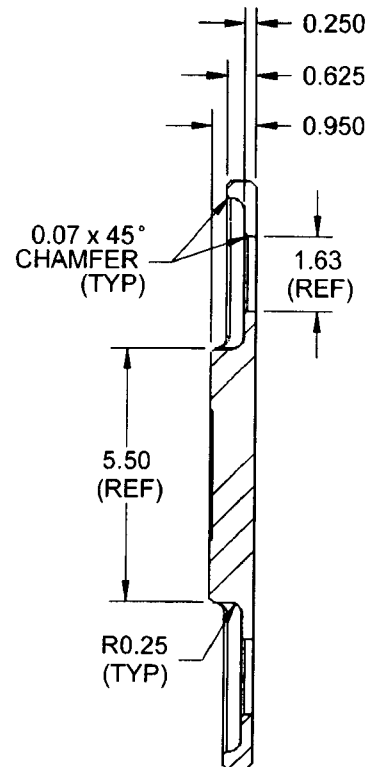
RELEASED
07.03.2007



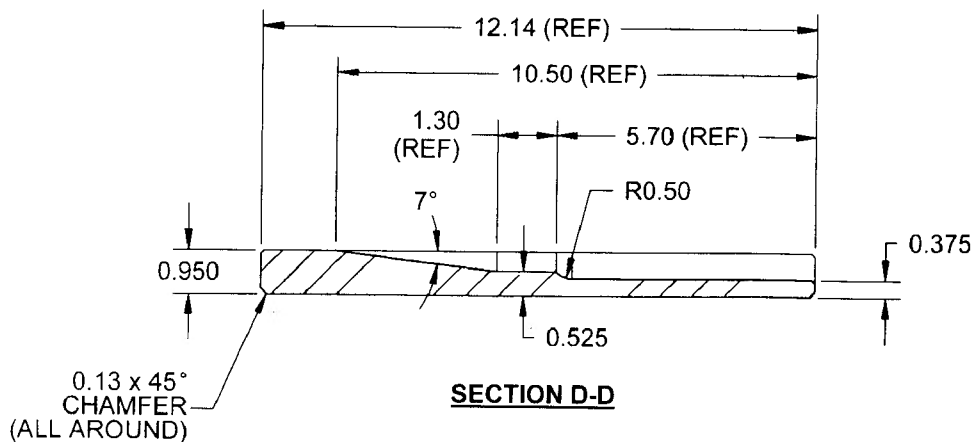
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

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91323

DART AEROSPACE LTD		Work Order: 91323
Description: R44 Gear Paw		Part Number: D3529-1
Inspection Dwg: D3529 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
12.76	$\pm .030$	12.750	✓		M, TAPE	P40-11
12.14	$\pm .030$	12.140	✓		"	"
Ø.260	$\pm .010^{+.006}_{-.001}$	.260	✓		VERN	P40-01
Ø.93	$\pm .030$	.931	✓		"	"
.30	$\pm .030$	.307	✓		MIC	P40-09
5.50	$\pm .030$	5.499	✓		VERN	P40-01
.07x45°	$\pm .030$	.085	✓		"	"
.250	$\pm .010$	.247	✓		MIC	118-120
.625	$\pm .010$	.616	✓		VERN	P40-01
.950	$\pm .010$	.954	✓		"	"
.07 x 45°	$\pm .030$	.050	✓		"	"
.375	$\pm .010$	.383	✓		MIC	118-120

Measured by: PO	Audited by: DA 08	Preliminary Approval:
Date: 12/10/25	Date: 12/10/26	Date:

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

10.04.15

